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		Art Unit	-		1614
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Allan SHEPARD et al. Serial No: 10/537,052 (Conf. #8397)

Filed: 2 June 2005

Examiner:

Group Art Unit: 1614

FOR: USE OF CATHEPSIN K INHIBITORS FOR THE TREATMENT OF GLAUCOMA

## INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 C.F.R. 1.56, 1.97, AND 1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. 1.56, 1.97, and 1.98, Applicants submit the patents, articles, and other information referenced in the specification as filed. The references are listed on the attached PTO Form 1449. Applicants are submitting copies of the foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2), copies of the U.S. patents are not enclosed.

A copy of the International Search Report issued in the PCT application, of which the present application is a 35 U.S.C. §371 application, is also included for the Examiner's convenience.

Applicants request that the listed patents, articles, and other information be considered during prosecution of this application and that they appear among the "References Cited" on any patent issuing herefrom.

Respectfully submitted,

Teresa J. Schultz Registration No. 40,256

(817) 551-4231

Address for Correspondence: Alcon Research, Ltd. Attn: Teresa J. Schultz 6201 S. Freeway, Mail Code Q-148 Fort Worth, TX 76134-2099 Attorney Docket No.: 2335 US F

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10/537,052 (Conf #8397)

2 June 2005

Allan SHEPARD

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Application Number

First Named Inventor

Filing Date

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2</sup> (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	US. 5,830,850	11/03/1998	Gelb et al.	
	A2	US- 5,998,470	12/07/1999	Halbert et al.	
	A3	us- 6,034,077	03/07/2000	Singh et al.	
	A4	US- 6,057,362	05/02/2000	Yamashita	
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Examiner initials*	Cite No.	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Γ
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Approved for use through 0.73 1/2006. ONe 65 2006. ONE 65 Complete if Known Substitute for form 1449/PTO **Application Number** 10/537,052 (Conf. #8397) INFORMATION DISCLOSURE Filing Date 2 June 2005 STATEMENT BY APPLICANT First Named Inventor Allan SHEPARD Art Unit 1614 (Use as many sheets as necessary) Examiner Name Sheet Attorney Docket Number 2335 US F 2 of 6

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	В1	ALTMANN et al., "Anylaminoethyl amides as novel non-covalent cathepsin K inhibitors," J. MED. CHEM. 45:2352-2354 (2002)	
	B2	BILLINGTON et al., "The slow-binding inhibition of cathepsin K by its propeptide," BIOCHEM. BIOPHYS. RES. COMMUN. 276:924-929 (2000)	
	В3	BOSSARD et al., "Mechanism of inhibition of cathepsin K by potent, selective 1,5-diacylcarbohydrazides: a new class of mechanism-based inhibitors of thiol proteases," BIOCHEMISTRY 38:15893-15902 (1999)	
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	B5	CLARK et al., "Glucocorticoid-induced formation of cross-linked actin networks in cultured human trabecular meshwork cells," IOVS 35:281-294 (1994)	
	В6	CLAVEAU et al., Biochemical and Biophysical Research Communications 281:551-557 (2001)	
	В7	DICKERSON et al., "The effect of dexamethasone on integrin and laminin expression in cultured human trabecular meshwork cells," EXP EYE RES 66:731-738 (1998)	
	В8	FALGUEYRET et al., "Novel, nonpeptidic cyanamides as potent and reversible inhibitors of human cathepsins K and L." J. MED. CHEM. 44:94-104 (2001)	
***	В9	FENWICK et al., "Solid-phase synthesis of cyclic alkoxyketones; inhibitors of the cysteine protease cathepsin K," BIOORG. MED. CHEM. LETT. 11:195-198 (2001a)	
	B10	FENWICK et al., "Diastereoselective synthesis, activity and chiral stability of cyclic alkoxyketone inhibitors of cathepsin K," BIOORG. MED. CHEM. LETT. 11:199-202 (2001b)	

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		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	C1	HAECKEL, et al., Developmental Dynamics 216:89-95 (1999)	
	C2	KAMOLMATYAKUL, S., Chen, W., LI, Y.P., 'Interferon-# down-regulates gene expression of cathepsin K in osteoclasts and inhibits osteoclast formation," J. DENT. RES. 80:351-355 (2001)	
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	С8	LEUNG-TOUNG et al., "Thiol-dependent enzymes and their inhibitors: a review", CURR MED CHEM 9:979-1002 (2002)	
	С9	MARQUIS et al., "Potent dipeptidyliketone inhibitors of the cysteine protease cathepain K," BIOORG. MED. CHEM. 7:581-588 (1999)	
	C10	MARQUIS et al., "Azepanone-based inhibitors of human and rat cathepsin K," J. MED. CHEM. 44:1380-1395 (2001a)	

Examiner Signature	/Gigi Huang/	Date Considered	11/22/2008

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	D1	MARQUIS et al., "Conformationally constrained 1,3-diamino ketones: a series of potent inhibitors of the cysteline protease cathepsin K," J. MED. CHEM. 41:3563-3567 (1998)	
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	D6	ORTEGO et al., "Gene expression of proteases and protease inhibitors in the human ciliary epithelium and ODM-2 cells," EXP. EYE RES. 65:289-299 (1997)	
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	D10	SAFTIG, et al., Proc. Natl. Acad. Sci. 95:13453-13458 (1998)	

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Sheet	5	of	6	Attorney Docket Number	2335 US F	

Examiner	Cite	NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of	
Initials*	No.1		
	E1	SCHICK et al., "Cross-Class Inhibition of the Cysteine Proteinases Cathepsins K, L, and S by the Serpin Squamous Cell Carcinoma Antigen 1: A Kinetic Analysis", BIOCHEMISTRY 37:5258-5266 (1998)	
	E2	SHEPARD et al., "Delayed Secondary Glucocorticoid Responsiveness of MYOC in Human Trabecular Meshwork Cells", IOVS 42:3173-3181 (2001)	
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	E4	STEELY et al., "The effects of dexamethasone on fibronectin expression in cultured human trabecular meshwork cells," IOVS 33:2242-2250 (1992)	
	E5	STROUP et al., "Potent and selective inhibition of human cathepsin K leads to inhibition of bone resorption in vivo in a nonhuman primate", J BONE MINER RES 16(10):1739-1746 (2001)	
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	E10	VOTTA et al., "Peptide aldehyde inhibitors of cathepsin K inhibit bone resorption both in vitro and in vivo," J. BONE MINER. RES. 12:1396-1406 (1997)	

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		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	F1	WANG et al., "Optimal procedure for extracting RNA from human ocular itssues and expression profiling of the congenital glaucoma gene FOXC1 using quantitative RT-PCR," MOL VIS 7:89-94 (2001)	
	F2	WILSON et al., "Dexamethasone induced ultrastructural changes in cultured human trabecular meshwork cells," CURR EYE RES 12:783 (1993)	
	F3	YAMASHITA et al., "Solid-phase synthesis of a combinatorial array of 1,3-bis(acylamino)-2-butanones, inhibitors of the cysteine proteases cathepsins K and L," J. COMB. CHEM. 1:207-215 (1999)	
	F4	YAMASHITA and DODDS, "Cathepsin K and the design of inhibitors of cathepsin K," CURR. PHARM. DES. 6:1-24 (2000)	
	F5	ZHAO, B., Janson, C.A., Amegadzie, B.Y., D'Alessio, K., Griffin, C., Hanning, C.R., Jones, C., Kurdyla, J., McQueney, M., Qlu, X., "Crystal structure of human osteoclast cathepsin K complex with E-84," NAT. STRUCT. BIOL. 4:109-111 (1997)	
	F6	International Search Report of a related PCT Application No. PCT/US2003/040511, mailed June 2, 2004	

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